thrusting the hand into the bulk and withdrawing representative portions. The hand is inserted in an open position and the fingers are held closely together while the hand is being inserted and the portion withdrawn.

(d) As the seed or screenings are sampled, each portion shall be examined. If there appears to be a lack of uniformity, the portions shall not be combined into a composite sample but shall be retained as separate samples or combined to form individual-container samples to determine such lack of uniformity as may exist.

(e) When the portions appear to be uniform, they shall be combined to form a composite sample.

[5 FR 32, Jan. 4, 1940, as amended at 10 FR 9950, Aug. 11, 1945; 25 FR 8769, Sept. 13, 1960; 26 FR 10035, Oct. 26, 1961]

§ 201.40 Bulk.

Bulk seeds or screenings shall be sampled by inserting a long probe or thrusting the hand into the bulk as circumstances require in at least seven uniformly distributed parts of the quantity being sampled. At least as many trierfuls or handfuls shall be taken as the minimum which would be required for the same quantity of seed or screenings in bags of a size customarily used for such seed or screenings.

[5 FR 32, Jan. 4, 1940, as amended at 26 FR 10035, Oct. 26, 1961]

§ 201.41 Bags.

(a) For lots of six bags or less, each bag shall be sampled. A total of at least five trierfuls shall be taken.

(b) For lots of more than six bags, five bags plus at least 10 percent of the number of bags in the lot shall be sampled. (Round off numbers with decimals to the nearest whole number, raising 0.5 to the next whole number.) Regardless of the lot size it is not necessary that more than 30 bags be sampled.

(c) Samples shall be drawn from unopened bags except under circumstances where the identity of the seed has been preserved.

[5 FR 32, Jan. 4, 1940, as amended at 26 FR 10035, Oct. 26, 1961]

§ 201.42 Small containers.

In sampling seed in small containers that it is not practical to sample as required in § 201.41, a portion of one unopened container or one or more entire unopened containers may be taken to supply a minimum size sample, as required in § 201.43.

[30 FR 7888, June 18, 1965]

§ 201.43 Size of sample.

The following are minimum sizes of samples of agricultural seed, vegetable seed and screenings to be submitted for analysis, test, or examination:

(a) Two ounces (57 grams) of grass seed not otherwise mentioned, white or alsike clover, or seeds not larger than these.

(b) Five ounces (142 grams) of red or crimson clover, alfalfa, lespedeza, ryegrass, bromegrass, millet, flax, rape, or seeds of similar size.

(c) One pound (454 grams) of sudangrass, proso millet, hemp, or seeds of similar size.

(d) Two pounds (907 grams) of cereals, sorghum, vetch, or seeds of similar or larger size.

(e) Two quarts (2.2 liters) of screenings.

(f) Vegetable seed samples shall consist of at least 400 seeds.

(g) Coated seed for a purity analysis shall consist of at least 7,500 seed units. Coated seed for noxious-weed seed examination shall consist of at least 30,000 seed units. Coated seed for germination test only shall consist of at least 1,000 seed units.

[10 FR 9950, Aug. 11, 1945, as amended at 15 FR 2394, Apr. 28, 1950; 59 FR 64492, Dec. 14, 1994]

§ 201.44 Forwarding samples.

Before being forwarded for analysis, test, or examination, the containers of samples shall be properly sealed and identified in such manner as may be prescribed by AMS. Samples of coated seed shall be forwarded in firmly packed crush-proof and moisture-proof containers.

[59 FR 64492, Dec. 14, 1994]

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§ 201.45 Obtaining the working sample.

(a) The working sample on which the actual analysis is made shall be taken from the submitted sample in such a manner that it will be representative.

(b) The sample shall be repeatedly divided to the weight to be used for the working sample. Some form of efficient mechanical divider should be used. To avoid damaging large seeds and coated seeds, a divider should be used which will prevent the seeds from falling great distances onto hard surfaces. In case the proper mechanical divider cannot be used or is not available, the sample shall be thoroughly mixed and placed in a pile and the pile shall be repeatedly divided into halves until a sample of the desired weight remains.

[5 FR 32, Jan. 4, 1940, as amended at 20 FR 7929, Oct. 21, 1955; 25 FR 8769, Sept. 13, 1960; 59 FR 64492, Dec. 14, 1994]

§ 201.46 Weight of working sample.

(a) *Unmixed seed.* The working samples for purity analysis and noxiousweed seed examination of unmixed seed shall be at least the weights set forth in table 1.

(b) *Mixtures consisting of one predominant kind of seed or a group of kinds of similar size.* The weights of the purity and noxious-weed seed working samples in this category shall be determined by the kind or group of kinds which compromise more than 50 percent of the sample.

(c) *Mixtures consisting of two or more kinds or groups of kinds of different sizes, none of which comprise over 50 percent of the sample.* The weights of the purity working samples in this category shall be the weighted averages (to the nearest half gram) of the weights listed in table 1 for each of the kinds which comprise the sample determined by the following method: (1) Multiply the percentage of each component in the mixture (rounded off to the nearest whole number) by the sample sizes specified in column 2, table 1, (2) add all these products, (3) total the percentages of all components of the mixtures, and (4) divide the sum in paragraph (c)(2) of this section by the total in paragraph (c)(3) of this section. If the approximate percentage of the components of a mixture are not known they may be estimated. The weight of the noxious-weed seed working sample shall be determined by multiplying the weight of the purity working sample by 10 or by calculating the weighted average in the same manner described above for the purity working sample.

(d) Coated seed.

(1) Unmixed coated seed. Due to variation in the weight of coating materials, the size or weight of the working sample shall be determined separately for each lot. The weight of the working sample shall be determined by weighing 100 completely coated units and calculating the weight of 2,500 coated units for the purity analysis and 25,000 coated units for the noxious-weed seed examination.

(2) Mixtures of coated seed. The working weight shall be determined in the following manner:

(i) Calculate the weight of the working sample to be used for the mixture under consideration as though the sample were not coated by following paragraph (b) or (c) of this section.

(ii) Determine the amount of coating material on 100 coated units by weighing the coated units. Remove the coating material using the methods described in §§ 201.51b (c) and (d). Calculate the percentage of coating material using the following formulas:

Weight of coating material = weight of 100 coated units − weight of 100 decoated units;

The percentage of coating material = weight of the coating material divided by the weight of 100 coated units × 100%.

(iii) The weight of the working sample shall be the product of the weight calculated in paragraph (d)(2)(i) of this section multiplied by 100 percent, divided by 100 percent minus the percentage of coating material calculated in paragraph (d)(2)(ii) of this section.